Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-7. (Cancelled).

8. (Previously Presented) A method comprising:

identifying at least one carrier of a plurality of carriers in a non-data bearing state, comprises receiving a carrier map from a remotely located system, the carrier map being produced at the system in response to conducting channel estimation analysis on the plurality of carriers to indicate which carriers are unreliable;

modulating the at least one non-data bearing carrier with random data, the non-data bearing carrier being output from an output port of a multiplexer unit identified by the carrier map.

9. (Original) The method of claim 8, wherein the carrier map indicates which of the plurality of carriers is deemed to be in an unreliable state.

10. (Original) A multi-carrier modulation system comprising:

a feedback link;

a multiplexer unit coupled to the feedback link, the multiplexing unit, including input ports and output ports, to receive as input a transmission data and a random data and, for each output port, to transmit one of the transmission data and the random data based on information transmitted over the feedback link; and

a modulator to modulate a non-data bearing carrier with the random data.

11. (Original) The multi-carrier modulation system of claim 10, wherein the modulator further outputs a multi-carrier modulated signal inclusive of the modulated, non-data bearing carrier.

12. (Original) The multi-carrier modulation system of claim 10, wherein the modulator to modulate a plurality of carriers that correspond in number to a number of output ports.

13. (Original) The multi-carrier modulation system of claim 11, wherein the modulator modulates the non-data bearing carrier with the random data when the information indicates that the non-data bearing carrier is unreliable.

14. (Original) The multi-carrier modulation system of claim 13, wherein non-data bearing carrier is determined to be unreliable through prior analysis of the carrier at a receiver using channel estimation.

15. (Original) The multi-carrier modulation system of claim 10 further comprising a random bit generator coupled to a first input port of the input ports.

16. (Original) The multi-carrier modulation system of claim 10 further comprising a pseudo-random bit generator coupled to a first input port of the input ports.

17. (Original) The multi-carrier modulation system of claim 10, wherein the modulator performs modulation in accordance with an Orthogonal Frequency Division Multiplexing (OFDM) modulation scheme.

18. (Original) The multi-carrier modulation system of claim 11, wherein the feedback link enables receipt of the information from a remotely located receiver system receiving the multi-carrier modulated signal.

19. (Cancelled).

20. (Previously Presented) The network of claim 23, wherein the first link is an Alternating Current (AC) power line.

21. (Original) The network of claim 20, wherein the system is a network transceiver for routing data over the AC power line.

22. (Previously Presented) The network of claim 23, wherein the system is a second multi-carrier modulation (MCM) system.

23. (Previously Presented) A network comprising:

a system coupled to a first link; and

a first multi-carrier modulation (MCM) system in communication with system over a second link, the first MCM system to identify at least one carrier of a plurality of carriers is in a non-data bearing state based on feedback information provided by the system and to modulate the at least one non-data bearing carrier with random data, the first MCM system comprises:

a multiplexer unit in communication with the system, the multiplexing unit, including input ports and output ports, to receive as input a transmission data and a random data and, for each output port, to transmit one of the transmission data and the random data based on the feedback information provided by the system, and

a modulator to modulate the at least one non-data bearing carrier with the random data

24. (Previously Presented) The network of claim 23, wherein the first MCM system is a modem.

25. (Previously Presented) The network of claim 23, wherein the first MCM system is a computer with wireless connectivity.

26. (Cancelled).

27. (Cancelled).